



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

SCIENTIFIC NEWS.

The work of the Michigan Fish Commission in 1894.—After a careful study of various points along the coast, Charlevoix has finally been decided upon as the location for the work of this year. It lies on the eastern shore of Lake Michigan just north of Grand Traverse Bay, within easy reach of numerous white fish spawning and fishing grounds. Extensive fishing operations are carried on here throughout the year, and varied conditions of shore and bottom are to be found within easy reach. Opposite this point Lake Michigan reaches a depth of 850 feet, and shallow water with reefs and islands are not far distant. Numerous inland lakes of varying size are also readily accessible and the variety of conditions is unsurpassed by any point on this shore. In addition to this the Commission has already at Charlevoix a hatchery which will furnish extensive aquaria for keeping specimens alive and for experimental work. A carpenter shop next door to the hatchery building has been rented for the summer and fitted out as a laboratory, with tables, shelves, reagents and the necessary apparatus. The University of Michigan co-operates with the undertaking as in former years, and has renewed its loan of apparatus and of a special library. Several boats, including a small steamer and all kinds of nets for shallow and deep water work and for bottom and surface collecting, are at the service of the party.

The work will include a determination of the fauna and flora of Lake Michigan at this point and of their vertical and horizontal distribution. This determination will be both qualitative and quantitative, and will be particularly directed towards a study of the life history of the white fish and lake trout. Since the life of the water constitutes, first or last, the food of the fish in it, this determination will afford some idea of the value of this locality as a breeding ground for fish and of its adaptability as a planting ground for the fry. The temperature, transparency and purity of the water and the character of shore and bottom, as well as the currents and connecting lakes will receive attention as problems which affect most powerfully the welfare of the fish.

The party at work in the laboratory will consist of Professor Henry B. Ward, University of Nebraska, Director; Professor E. A. Birge, University of Wisconsin; Professor C. Dwight Marsh, Ripon College, Wisconsin; Dr. Charles A. Kofoid, University of Michigan; Dr. Robert H. Walcott, University of Michigan; Mr. Herbert S. Jennings, University of Michigan; Mr. Bryant Walker, Detroit, Michi-

gan. In addition to these, a number of specialists will be guests of the Commission for a longer or shorter interval.

The laboratory will be open during July and August, and visiting scientists will be accorded a most cordial welcome. To a certain extent it will be possible to offer the privileges of the laboratory to specialists who may wish to carry on investigations on special groups. Notice of such cases should be sent to the director as early as possible, that the necessary arrangements may be made.

The Biological Station of the University of Illinois.—

The field operations and the resources of the natural history departments of the University, especially those of zoology and botany, have been notably increased during the last term by the establishment, April 1, on the Illinois River, at Havana, of a biological station devoted to the systematic and continuous investigation of the plant and animal life of the waters of that region. This establishment, authorized by the trustees of the University at their March meeting, is under the direction of Professor Forbes, with Mr. Frank Smith, assistant in zoology, in immediate charge of the work. Mr. Adolph Hempel and Mrs. Smith also work there continuously, with an expert fisherman as factotum.

The field work is now done from a cabin boat, chartered for the summer, which carries the seines, dredges, surface nets, plankton apparatus, and other collecting equipment, together with microscopes, reagents for the preservation of specimens, a small working library, a number of special breeding cages for aquatic insects, and a few aquaria. This boat is provided with sleeping accommodations for four men, and with a well-furnished kitchen.

In Havana itself are office and laboratory rooms supplied with running water and electric light, and provided with the usual equipment of a biological laboratory, consisting of first-class microscopes, microtomes, biological reagents, etc., and tables for five assistants. Professor Forbes and Mr. Hart, of the state laboratory of natural history, visit the station frequently for special lines of work.

The boat is established in Quiver Lake, an elongate bay or Illinois, two and a half miles above Havana. At low water this lake is about two miles long with a steep sandy bank some fifty feet high on the eastern side and a mud flat on the western. The banks are wooded, on the east mostly with oak and hickory, and on the west with the lowland species. The locality is beautiful and healthful, and the water excellent.

From the lake and the river selection has been made of a number of

typical situations, and from these, and from Phelps and Thompson Lakes a little distance away, collections of all descriptions are made at regular intervals for a comparative study of the organic life—the relative abundance of the species at different seasons of the year, and the general system of conditions by which it is affected.

The plan of operation contemplates continuous work at this station for several years, with especial reference to the effect of the enormous overflow and rapid retreat of waters characteristic of the Illinois and the Mississippi system generally. Continuous studies are made of the food of all the species collected, with final reference to the feeding habits and food resources of the native fishes of the region. Temperatures are taken daily, and analyses of the waters of the lake and river at the various stations are being made at regular intervals by the chemical department of the University.

This station will be held open for graduate students in zoology and botany wishing to take their advanced degrees in zoological or botanical lines. Such students, choosing to pursue their studies at Havana will be furnished with every facility for the original investigation of a large variety of subjects, and arrangements will be made by which the other studies of their postgraduate courses may be carried forward without embarrassment.

The station is further capable of sufficient expansion to accommodate other investigators from the University and from the University summer school, for whose benefit excursions will be arranged as may be found profitable.

This is the first inland aquatic biological station in America manned and equipped for continuous investigation; and the first in the world to undertake the serious study of the biology of a river system.—*From the Illini, June 6, 1894.*

Cook's Excursion to Greenland.—The excursion to visit Greenland organized by Dr. Frederick A. Cook, anthropologist of Peary's first expedition, consists of fifty persons, of whom a good part are students of science. They have chartered the steamer *Miranda* and will sail directly for the far north, stopping at Cape Breton, and at two or three places in Labrador and Southern Greenland, reaching Inglefield Gulf about the first of August. Among the scientific members are Professor W. H. Brewer of Yale College, who will go the whole round; Professor B. C. Jillson of Pittsburg, Pa., who with Professor G. F. Wright and son, of Oberlin, O., and a party of six, will stop off in Umenak Fiord about latitude 71, to study the border of the ice sheet, the neighboring glacial deposits, the glaciers entering the

fiord, the Tertiary deposits of the vicinity, and make a collection of the plants and animals.

Professor L. L. Dyche, at the head of the department of Zoology and Taxidermy at the State University of Kansas, is the official naturalist of the expedition, and will go the full round. He will make a specialty of collecting Birds and Mammals. He will have under him Mr. S. P. Orth of Oberlin, O., botanist, and B. F. Stanton of Oberlin, assistant naturalist, to make general collections. Mr. E. A. McIlhenney of Louisiana, goes as an ornithologist.

Professor C. E. Hite of Philadelphia with three assistants is to stop off in Labrador for general exploration. Professor E. P. Lyon of Chicago goes for the general student of biology. The expedition expects to return about September 20th.—G. F. WRIGHT.

The Forty-third Meeting of the American Association for the Advancement of Science, will be held in Brooklyn, New York, August 15 to 24, 1894. The following officers will be in charge:

President, Daniel G. Brinton, Media, Pa.

Vice-Presidents, A.—Mathematics and Astronomy, George C. Comstock, Madison, Wis.; B.—Physics, Wm. A. Rogers, Waterville, Me.; C.—Chemistry, T. H. Norton, Cincinnati, O.; D.—Mechanical Science and Engineering, Mansfield Merriman, South Bethlehem, Pa.; E.—Geology and Geography, Samuel Calvin, Iowa City, Iowa; F.—Zoology, S. H. Scudder, Cambridge, Mass. (Resigned); G.—Botany, L. M. Underwood, Greencastle, Ind.; H.—Anthropology, Franz Boaz, New York; I.—Economic Science and Statistics, Henry Farquhar, Washington, D. C.

Permanent Secretary, F. W. Putnam, Cambridge (office, Salem), Mass.

General Secretary, H. L. Fairchild, Rochester, N. Y.

Secretary of the Council, James Lewis Howe, Louisville, Ky.

Dr. August von Klipstein, formerly Professor of Mineralogy at Giesson, died, April 16, 1894, in his 93d year.

The news of the appointment of Sidney J. Heckson of Downing College, Cambridge, to the Chair of Zoology at Owens College, Manchester, will prove welcome to his many friends.

Science in Persia! The Shah has instituted a zoological garden.

Dr. Joseph Hyrtl, the anatomist, died, July 17, 1894. He was born on Dec. 7, 1811, at Eisenstadt, Hungary, and studied at Vienna, where he obtained, at the age of twenty-one, the position of preparator. He was chosen in 1837 as professor in the University of Prague, and

in 1845 returned to Vienna as professor of anatomy at the university there. In 1857 he became a member of the Imperial Academy of Sciences. He was one of Austria's most distinguished anatomists and the author of two works which have come to be accepted as standard authorities throughout the world—"The Manual of Physiological and Practical Anatomy" and "The Manual of Topographical Anatomy and Its Applications." Dr. Hyrtl, being very skilful in the art of preparing anatomical specimens, established in Vienna an anatomical museum, of which he published a most interesting description. He had enriched most of the anatomical collections of Europe with models of rare perfection. One of his collections, that of the skeletons of fishes, was purchased by Prof. Cope of Philadelphia. He was for a time director of the *Ecole Supérieure*, resigning the position in 1874.

Dr. George Huntington Williams, professor of geology at Johns Hopkins University, whose death occurred in July, founded the department of mineralogy and geology at the Johns Hopkins in 1883, and since that time had acquired a wide reputation among scientific men for his intimate knowledge of the geology and topography of Maryland. He was also a collaborator of the United States Geological Survey, and prepared a number of special reports for the survey during his summer vacation. He was born Jan. 28, 1856, at Utica, N. Y. His connection with the Johns Hopkins dates from March, 1883, when he entered the university as a fellow by courtesy. In October of that year he was added to the faculty as an associate in mineralogy. In 1885 he was made an associate professor, and in 1892 was chosen to the chair of inorganic geology. His writings include nearly a hundred geological and mineralogical papers in scientific journals, more than one-half of which treat of the geology of Maryland, especially in the vicinity of Baltimore. He wrote "The Elements of Crystallography," and had been engaged for a number of years in preparing a new geological map of Maryland for the United States Geological Survey. He was one of the judges of the mines and mining exhibit at the World's Fair, an editor of the *Standard Dictionary*, recently issued, and of *Johnson's Cyclopedia*, now in press. He was a member of the National Academy of Sciences, a vice-president of the Geological Society of America, and a member of the American Institute of Mining Engineers, the Washington Geological Society and other scientific bodies.

Johannes Nill, founder of the Stuttgart Zoological Garden, died in that city May 20, 1894; his son, Adolf Nill, is his successor in the management of the garden.